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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,582	01/27/2004	Jun Yamaguchi	04057/LH	3853
1933	7590	11/02/2005	EXAMINER	
FRISHAUF, HOLTZ, GOODMAN & CHICK, PC 220 5TH AVE FL 16 NEW YORK, NY 10001-7708			LAUCHMAN, LAYLA G	
			ART UNIT	PAPER NUMBER
			2877	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/766,582

Applicant(s)

YAMAGUCHI ET AL.

Examiner

L. G. Lauchman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) 10-12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

Claim 2 is objected to because of the following informalities: It is not clear from the claim the meaning of an optical unit as it is claimed. Claim 9 determines it as a light source for the exiting light and a light source for the detecting light. The following rejection of Claim 2 is based on the Examiner's interpretation that the optical unit is a combination of the guide system and the irradiation lens. Appropriate correction is required.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Walker et al (E P 427 943, see attached English translation of Abstract).

Claim 1. Walker et al disclose a method for photometric spectroscopy analyzing a sample, comprising irradiating exciting light and detecting light (2 and 4) via an irradiation lens (10), detecting (by the detector 20) the detecting light passing through a thermal lens generated

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by the sample (15) onto which the exciting light has been irradiated, and wherein the exciting light and the detecting light are guided (via fiber 8) in a single mode to the irradiation lens via an optical wave guide path.

Claim 2. A sensor an exciting light source (2) that outputs exciting light, a detecting light source (4) that outputs detecting light, a guide optical system (8) that guides the exciting light and the detecting light together, an irradiation lens (10) that irradiates the exciting light and the detecting light guided by said guide optical system onto a sample, detecting means (20) for detecting the detecting light passing through a thermal lens generated by the sample (15) on which the exciting light has been irradiated, analysis means (24) for analyzing the sample based on the detected detecting light, and an optical unit in which said guide optical system and said irradiation lens are disposed, said optical unit having an optical waveguide path as an optical path of said guide optical system.

Claim 4. The detecting light has a different frequency from that of the exciting light, and said irradiation lens has a chromatic aberration.

Claim 5. The detecting light has a different frequency from that of the exciting light, and said irradiation lens has a chromatic aberration.

Claim 8. The optical wave guide path transmits the exciting light and the detecting light in a single mode.

Claim 9. Said optical unit comprises a light source for the exciting light 2 and a light source 4 for the detecting light.

Claim Rejections - 35 USC § 103

Claims 3, 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al (US 4,927,943, see attached English translation of Abstract) as applied to claim 2 above, and further in view of Carr (US 4,927,268).

Claim 3. Walker et al teach all as applied to Claim 2, except that the irradiation lens 10 is fixed to an end of the optical wave guide path through which the exciting light and the detecting light are output. It would have been obvious to one skilled in the art at the time the invention was made to provide the irradiation lens 10 fixed to the fiber 8, since it would improve the coupling of light.

Claims 6 and 7. Walker et al teach all as applied to Claim 2, except that the irradiation lens comprises a gradient refractive index lens. Carr teaches a system for optical analysis using a gradient index lens 12 attached to the fiber. It would have been obvious to one skilled in the art at the time the invention was made to provide a gradient index lens in the invention of Walker in order to fit the lens at the end of the fiber.

Allowable Subject Matter

Claims 10-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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The following is a statement of reasons for the indication of allowable subject matter: The prior art of record taken along or in combination, fails to disclose or render obvious the optical unit comprising a channel disposed downstream of said irradiation lens in a direction of travel of the exciting light and the detecting light and through which a liquid containing the sample flows, a channel-formed plate-shaped element disposed between the optical unit and the detecting means and having a channel through which a liquid containing the sample flows, in combination with the rest of the limitation of the corresponding independent claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to L. G. Lauchman whose telephone number is (571) 272-2418.


The examiner's normal work schedule is 8:00am to 4:30pm (EST), Monday through Friday. If attempts to reach examiner by the telephone are unsuccessful, the examiner's supervisor Gregory J. Toatley, Jr. can be reached on (571) 272-2059, ext. 77.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Any inquiry of a general nature or relating to the status of this application should be directed to the TC receptionist whose telephone number is (571) 272-1562.

A handwritten signature in black ink, appearing to read 'L. G. Lauchman', with a large, stylized loop at the end.

L. G. Lauchman
Primary Examiner
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October 31, 2005